



King County

Department of Natural Resources and Parks
Wastewater Treatment Division

Reclaimed Water Comprehensive Plan

MWPAAC - E & P
Subcommittee Meeting
September 3, 2008

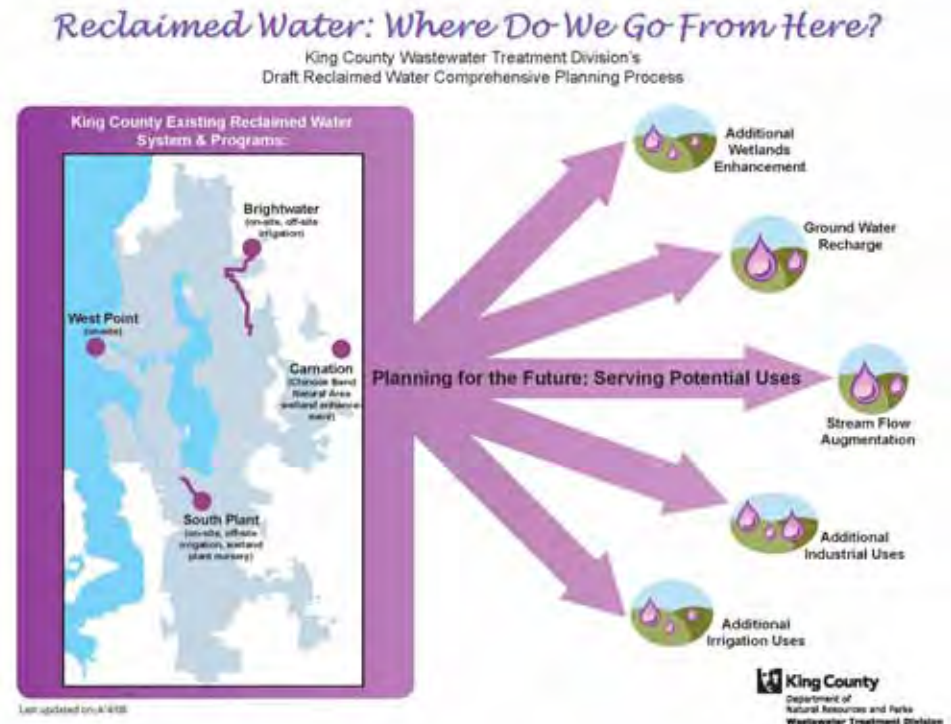


Today's Presentation

- Summarize reclaimed water comprehensive plan process including:
 - Comprehensive plan overview
 - Goals and objectives
 - Stakeholder involvement
 - Project scope of work
 - Consultant scope of work
- MWPAAC involvement in planning process

What Plan Will Explore

- The conditions under which King County will make future reclaimed water investments, beyond the existing system and commitments
- Opportunities for uses of reclaimed water in the region
- How future reclaimed water projects will be integrated into our wastewater system operations
- Regional issues and implications for further developing our reclaimed water program including: public health, financial, environmental, operational issues.
- Review and revise RWSP Reclaimed Water Policies



Goals To Guide the Planning Process

- Engage stakeholders
- Identify alternatives that support operation of regional wastewater system
- Identify ways to better manage our water resources
- Identify and prioritize beneficial uses of treated effluent
- Conduct open planning process





Plan Objectives

■ Objectives:

- ☐ Reduce reliance on Puget Sound discharge
- ☐ Identify beneficial uses
- ☐ Identify environmental benefits and impacts
- ☐ Identify facilities
- ☐ Identify benefits and costs
- ☐ Develop financing plan



Stakeholder Involvement

- Stakeholders include water purveyors, wastewater utilities, environmental groups, tribal governments, local elected officials, regulators, potential recreational, agricultural and industry user groups, civic groups, and equity and social justice interests



Stakeholder Involvement (cont.)

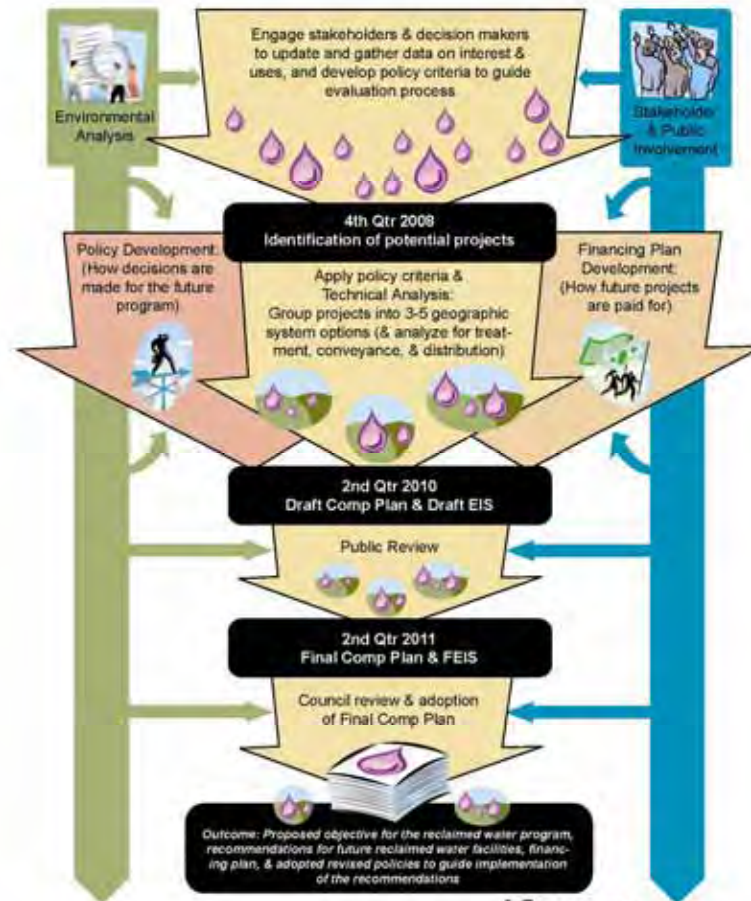
- Regional participation strategy for stakeholder input and advice
 - Individual stakeholder discussions
 - Workshops
- MWPAAC
 - Monthly E & P meetings and others as needed
 - Meeting input will include technical review of reclaimed water use information, system alternatives, and system operations

Project Team

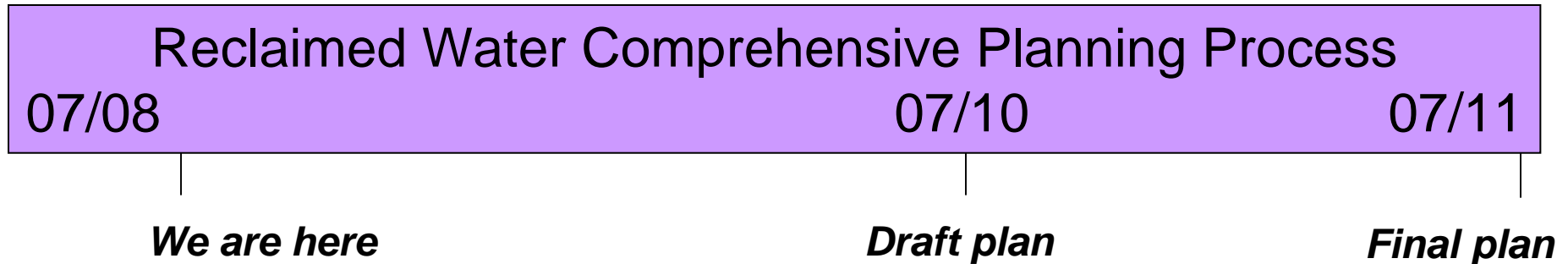
- King County staff include:
 - Project Manager: Mark Buscher
 - Technical/Policy support from Dept. of Natural Resources and Parks, Wastewater Treatment Division, and Water and Land Resources Division
- Consultant staff include:
 - Brown and Caldwell (engineering)
 - ECONorthwest (economic and financial)
 - Norton-Arnold & Company (workshop facilitation)
 - Jones and Stokes (environmental)

Planning Process Overview

King County Wastewater Treatment Division's Draft Reclaimed Water Comprehensive Planning Process



Project Schedule



- Initial two-year planning process for *draft* plan
 - Final plan to follow in 2011
- Planning process officially began July 1st
- E&P Subcommittee to be involved monthly throughout process



Scope of Work Elements

- Carry out regional participation strategy
- Review of regional drivers
- Develop policy criteria to help guide planning and evaluation process
- Identify and prioritize uses and group into option areas
- Create facility alternatives for option areas
- Analyze alternatives
- Develop draft comprehensive plan



Review Regional Drivers

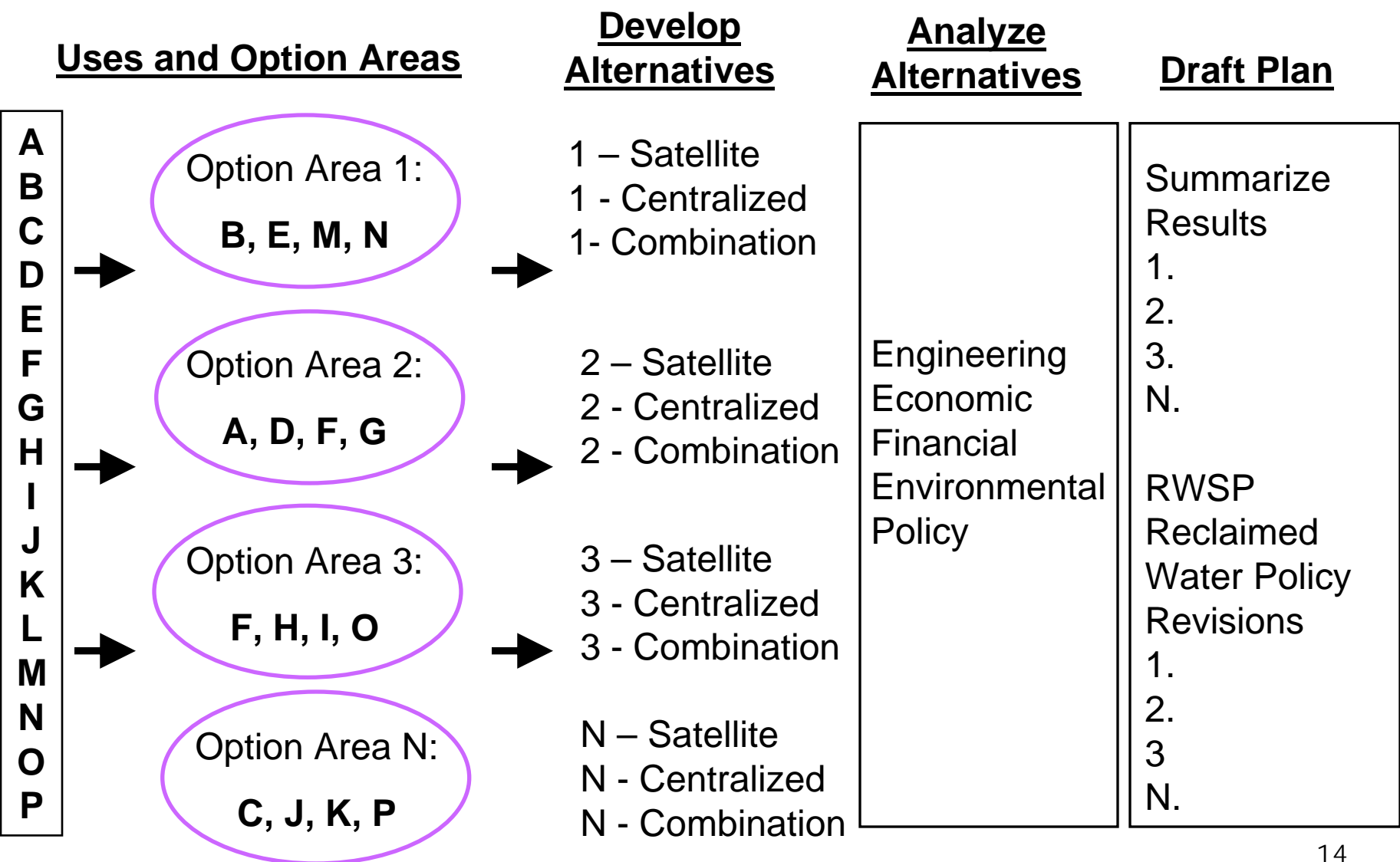
- Multiple drivers, including:
 - Reduce reliance on Puget Sound as discharge site
 - Prepare for the future
 - Potential for more stringent water quality regulations
 - Potential climate change impacts
 - Examine reclaimed water as a resource



Develop Policy Criteria

- Help guide planning and evaluation process
- Multiple criteria (environmental, public health, operational, financial, community)
- Will be developed with stakeholder input
- Will be reviewed and approved by King County Council

Use Identification, Option Area Analysis, and Draft Plan





Consultant Scope of Work

■ Tasks

- Engineering analysis (Brown and Caldwell)
- Economic analysis (ECONorthwest)
- Financial analysis (Brown and Caldwell, ECONorthwest)
- Environmental analysis (Jones and Stokes)
- Workshop facilitation (Norton-Arnold)



Engineering Analysis

- Develop Reclaimed Water System Alternatives
- Analyze effect of alternatives on planned treatment and conveyance improvements
- Estimate reclaimed water volumes
- Identify alternatives to reclaimed water

Economic Analysis

- Benefit cost analysis
 - Utilize WaterReuse Foundation Framework for Evaluating the Benefits and Cost of Water Reuse
 - Framework process systematically quantifies and evaluates the economic advantages (benefits) and disadvantages (costs) of reclaimed water alternatives
 - Includes a full social cost accounting



Financial Analysis

- Cost estimating of alternatives
- Cost recovery
 - Potential sources
 - Wastewater rates
 - Water rates
 - Other



Environmental Analysis

- Natural Environment Uses
 - Groundwater
 - Streams
 - Wetlands
- Energy and greenhouse gas emission impacts
- SEPA review



Discussion

- Work that's been done to date
 - Develop discussion questions
 - Stakeholder discussions
 - Schedule future Stakeholder Workshops
- Questions



Next Meeting

- Policy criteria to help guide planning and evaluation process
- Preliminary information on natural environment uses
- South King County input